

# National Mathematics Magazine

## INDEX TO VOLUME XIV

October, 1939 to May, 1940

<i>Topic</i>	<i>Author</i>	<i>Page</i>
A Certain Geometrical Calculus by Van der Warden in Connection with the Elliptic Cubic.....	Arnold Emch.....	439
Additive Entities, An Extension of Farey Series..	Harold Sinclair Grant.....	256
Advanced Calculus, by I. S. Sokolnikoff. (Review).....	R. V. Churchill.....	424
Analytic Geometry and Calculus (New Edition), by Woods and Bailey. (Review).....	Jesse Pierce.....	119
Applications of Complex Numbers to Geometry of Circles.....	Allen A. Shaw.....	26
Applied Mathematics in Chemical Engineering, by Thomas K. Sherwood and Charles E. Reed. (Review).....	Turner L. Smith.....	172
Appreciation of Sophie Germain.....	Sister M. Thomas à Kempis.....	81
Are There Any Questions?.....	Peter Tullier.....	278
Build Up of Current in an Iron Clad Circuit.....	Lynn L. Merrill.....	100
Calculation of Planetary Motions.....	Edgar W. Woolard.....	179
Calculus, by F. H. Miller. (Review).....	Frank Edwin Wood.....	61
College Algebra, (Fourth Edition), by H. L. Rietz and A. R. Crathorne. (Review).....	Edwin Comfort.....	358
Complex Variable and Operational Calculus, by N. M. McLachlan. (Review).....	W. E. Byrne.....	425
Concepts of the Calculus, by Carl B. Boyer. (Review).....	W. E. Byrne.....	427
Concerning Upper and Lower Bounds of the Roots of a Real Algebraic Equation.....	E. C. Kennedy.....	76
Configuration Associated with a Tetrahedron.....	J. W. Peters.....	67
Coordinate Geometry, by L. P. Eisenhart. (Review).....	H. P. Evans.....	356
Descriptive Geometry, by A. V. Millar and K. G. Shields. (Review).....	John W. Bradshaw.....	358
Development of the Minkowski Geometry of Numbers, by Harris Hancock. (Review).....	J. V. Uspensky.....	423
Differential and Integral Calculus, (Second Edition), by John Haven Neelley and Joshua Irving Tracey. (Review).....	H. P. Thielman.....	228
Distance Geometries, A Study of the Develop- ment of Abstract Metrices, by Leonard M. Blumenthal. (Review).....	C. B. Tompkins.....	116
Does Mathematics Work?.....	Irby C. Nichols.....	298
Fabre and Mathematics and Other Essays, by Lao Geneva Simons. (Review).....	Marion E. Stark.....	496
First Course in Theory of Numbers, by H. N. Wright. (Review).....	G. F. Cramer.....	294
First Year College Mathematics, by Louis C. Plant and Theodore R. Running. (Review).....	L. D. Gore.....	428
Foot-notes to the Chapter on "Theory of Equations".....	Emory P. Starke.....	408

<i>Topic</i>	<i>Author</i>	<i>Page</i>
Formal Logic: A Modern Introduction, by Albert A. Bennett and Charles A. Baylis. (Review).....	J. C. C. McKinsey.....	226
Formula for $\sum_{x=1}^{x=n} x^p$ .....	J. Rosenbaum.....	193
Freshman Mathematics, by G. W. Mullins and D. E. Smith. (Review).....	M. S. Robertson.....	229
General Analysis, Part II, (The Fundamental Notions of General Analysis), by Eliakim Hastings Moore, with the cooperation of Raymond Walter Barnard.....	L. W. Griffiths.....	295
History of American Mathematical Journals, (Part I).....	Benjamin F. Finkel.....	197
History of American Mathematical Journals, (Part II).....	Benjamin F. Finkel.....	261
History of American Mathematical Journals, (Part III).....	Benjamin F. Finkel.....	317
History of American Mathematical Journals, (Part IV).....	Benjamin F. Finkel.....	383
History of American Mathematical Journals, (Part V).....	Benjamin F. Finkel.....	461
Introduction to Modern Geometry, by Levi S. Shively. (Review).....	J. R. Musselman.....	175
Introduction to the Theory of Equations, by Louis Weisner. (Review).....	Ernest L. Mackie.....	494
Introductory Mathematical Analysis, by Joel S. Georges and Jacob M. Kinney. (Review).....	W. T. Stratton.....	493
In Union is Strength.....	F. L. Wren.....	366
Language of Mathematics.....	S. T. Sanders.....	178
Literature Received by the Editorial Board During Period July 1, 1938—July 1, 1939 (Volume XIII).....		359
Literature Received by the Editorial Board During Period July 1, 1939—April 1, 1940 (Volume XIV).....		382
Literature Received by the Editorial Board During Period April 1, 1940—June 1, 1940 (Volume XIV).....		496
Mathematical Adventures, by Fletcher Durell. (Review).....	Earl C. Kiefer.....	426
Mathematical Analysis for Economists, by R. G. D. Allen. (Review).....	H. T. Davis.....	60
Mathematical Methods in Engineering, by Theodore V. Karman and Maurice A. Biot (Review).....	W. E. Byrne.....	424
Mathematical Recreations and Essays (11th Edition), by W. W. Rouse Ball. (Revised by H. S. M. Coxeter). (Review).....	H. T. Davis.....	357
Mathematical World News.....	L. J. Adams.....	46
Mathematical World News.....	L. J. Adams.....	103
Mathematical World News.....	L. J. Adams.....	160
Mathematical World News.....	L. J. Adams.....	214
Mathematical World News.....	L. J. Adams.....	279
Mathematical World News.....	L. J. Adams.....	345
Mathematical World News.....	L. J. Adams.....	412

<i>Topic</i>	<i>Author</i>	<i>Page</i>
Mathematical World News . . . . .	L. J. Adams . . . . .	477
Meaning of Mathematics (Second Edition), by Cassius Jackson Keyser. (Review) . . . . .	Norma Stelford . . . . .	427
Medieval Number Symbolism, Its Sources, Meaning, and Influence on Thought and Expression, by Vincent Foster Hopper. (Review) . . . . .	William Jaffe . . . . .	176
More About Better Mathematics . . . . .	Joseph Seidlin . . . . .	96
New First Course in the Theory of Equations, by Leonard E. Dickson. (Review) . . . . .	H. A. Simmons . . . . .	291
Note on a Diophantine Equation . . . . .	A. A. Aucoin . . . . .	459
Note on Integration . . . . .	Carl A. Ludeke . . . . .	253
Note on Observed Geometric Series . . . . .	A. B. Soble . . . . .	372
Note on the Diophantine Equation $Ax^2 + y^2 = 4^2$ . . . . .	William H. Erskine . . . . .	311
Note on the Distribution of the Median . . . . .	Edward Paulson . . . . .	379
Note on the Rational Plane Cubic Curve . . . . .	G. R. Kraus and J. H. Neelley . . . . .	134
Note on the 3-Bar Curve . . . . .	Robert C. Yates . . . . .	190
Note to the Theory of Equations . . . . .	H. T. R. Aude . . . . .	308
On Brocard's Ellipse . . . . .	Vincenzo Cavallaro . . . . .	445
On the Discovery of the Logarithmic Series and Its Development in England up to Cotes . . . . .	Josef Ehrenfried Hofmann . . . . .	37
On the Rational Plane Quartic Curve with Triple Point . . . . .	H. E. Arnold and A. R. Parente . . . . .	138
Philosophy and Mathematics . . . . .	Kurt F. Leidecker . . . . .	122
Plane Trigonometry, by Stratton and Daugherty. (Review) . . . . .	H. P. Pettit . . . . .	173
Plane Trigonometry by Fred W. Sparks and Paul K. Rees. (Review) . . . . .	H. S. Kaltenborn . . . . .	493
Polygons as Fundamental Elements in the Geometry of Plane Cubic Curves . . . . .	J. M. Feld . . . . .	367
Proofs and Solutions of Exercises Used in Plane Geometry Tests, by Hale Pickett. (Review) . . . . .	Harold Fawcett . . . . .	292
Questions in Educating Mathematics Teachers for the Secondary School . . . . .	Edwin G. Olds . . . . .	271
Relativity . . . . .	B. Hoffmann . . . . .	5
Remedial Reading in College Mathematics . . . . .	A. L. O'Toole . . . . .	329
Representation of Integers in Forms . . . . .	Ralph Hull . . . . .	235
Research and Statistical Methodology, Books and Reviews, 1933-1938, by Oscar Krisen Buros. (Review) . . . . .	J. M. Hughes . . . . .	231
Reviews and Examinations in Algebra, by Oswald Tower and Winfield Sides. (Review) . . . . .	M. J. Newell . . . . .	495
Root Isolation Through Curve Analysis . . . . .	E. C. Kennedy . . . . .	373
Ruler and Compass Mapping Problem Associated with the Equilateral Triangle . . . . .	J. J. L. Hinrichsen . . . . .	141
Science in a Tavern, by Charles S. Slichter. (Review) . . . . .	Jewell Hughes Bushey . . . . .	491
Second Lesson in the History of Mathematics . . . . .	G. A. Miller . . . . .	144
Series of Line Involutions in $S_3$ Defined as Point Transformations of a $V_4^2$ in $S^5$ Into Itself . . . . .	C. R. Wylie, Jr. . . . .	125
Short History of Science, by W. T. Sedgwick and H. W. Tyler, (Revised by H. W. Taylor and R. P. Bigelow). (Review) . . . . .	Louis C. Karpinski . . . . .	429

<i>Topic</i>	<i>Author</i>	<i>Page</i>
Solution of Numerical Equations.....	Clifford Bell.....	435
Stephen Timoshenko—60th Anniversary Volume. (Review).....	John W. Cell.....	232
Suggestions for Reducing Mortality in Freshman Mathematics.....	W. P. Heinzman.....	211
Synthetic Projective Geometry, by R. G. Sanger. (Review).....	John R. Mayor.....	292
Teaching Arithmetic in the Elementary School, by Robert Lee Morton. (Review).....	Eugene W. Hellmich.....	490
The Drawing of Quadric Surfaces.....	Neil Little.....	472
Theoremes de Geometrie Elementaire.....	V. Thébault.....	313
The Rectifying Curve.....	Roy A. Mather.....	449
The Tower.....	Norman E. Rutt.....	234
The True Reason.....	Mario O. Gonzales.....	213
Thomas Jefferson and Mathematics, by David Eugene Smith. (Review).....	Mary W. Newsom.....	492
Three-Circle Problems in Modern Geometry.....	C. D. Smith.....	299
To Have and to Hold.....	Robert C. Yates.....	2
To Our Colleagues in Mathematics.....	W. D. Cairns.....	434
Trigonometry, (Revised), by N. J. Lennes and A. S. Merrill, (Review).....	M. S. Knebelman.....	62
Vector Analysis, by J. H. Taylor. (Review).....	E. J. Moulton.....	120
Visual Aids in Teaching Geometry.....	Jessie May Hoag.....	153
We Discover the Meaning of Curvature.....	Edwin G. Olds.....	469
What Price Isolation?.....	Joseph Seidlin.....	66
Why Logarithms to the Base $e$ Can Justly be Called Natural Logarithms.....	John Ellis Evans.....	91

#### PROBLEMS PROPOSED

Of each pair of successive numbers followed by a semicolon, or a period, the first denotes the NUMBER of the problem proposed, the second, the PAGE on which it is stated.

Altshiller-Court, Nathan.....	317,59; 322,114; 226,162; 335,224; 362,488.
Arany, Daniel.....	292,167; 331,171; 338,225; 345,354.
Aucoin, A. A.....	321,114.
Aude, H. T. R.....	316,59; 283,110; 320,114; 297,218; 303,223.
"A Wag".....	359,488.
Bush, L. E.....	288,166.
Byrne, W. E.....	365,489.
Clarke, Walter B.....	312,58; 272,105; 324,115; 325,170; 294,216; 302,222; 259,281; 354,422.
Duncan, Dewey C.....	224,51.
Epstein, Leo F.....	311,58.
Farnell, Albert.....	285,111; 308,286.
Foster, C. Bull.....	344,290.
Gaines, R. E.....	299,220.
Grant, H. S.....	315,58; 305,283.
Grossman, Howard D.....	293,216; 298,219; 352,421; 363,488.
Janes, W. C.....	323,114.
Kac, M.....	282,109.
Kennedy, E. C.....	330,171; 346,354.
Luke, Yudell.....	287,112; 304,282.
Lyttleton, Raymond A.....	105,50.

MacKay, D. L. .... 314,58; 280,107; 318,114; 327,170; 350,355; 358,487;  
 360,488.

Mallory, Virgil S. .... 339,289.

Mills, C. N. .... 306,284.

Moessner, Alfred. .... 348,355.

Nelson, Cyril. .... 357,487.

Parker, W. V. .... 321,114; 296,217; 337,225; 309,287.

Peters, J. W. .... 290,166.

Robertson, M. S. .... 273,414; 351,421.

Rosenbaum, J. .... 279,106; 328,171; 284,215.

Simmons, H. A. .... 310,58.

Smith, H. L. .... 334,224.

Starke, E. P. .... 307,285; 341,290; 361,488.

Tremblay, Althéod. .... 342,290.

Thébault, V. .... 226,52; 278,54; 289,112; 295,113; 319,114; 245,163;  
 286,164; 301,221; 336,225; 340,289; 349,355; 355,422.

Thomas, Paul D. .... 333,224; 347,355; 353,421.

Trigg, C. W. .... 277,53; 313,58; 332,224; 356,422; 364,489.

Wishard, G. W. .... 300,168; 326,170.

Yates, Robert C. .... 281,55; 329,171; 343,290.

#### PROBLEMS SOLVED

Of each pair of successive numbers followed by a semicolon, or a period, the first denotes the NUMBER of the problem proposed, the second, the PAGE on which it is solved.

Alrich, G. F. .... 282,110.

Altshiller-Court, Nathan. .... 226,162; 317,349; 322,351; 335,420.

Arany, Daniel. .... 331,419.

Aude, H. T. R. .... 283,111; 289,113; 303,224.

Ayres, Frank, Jr. .... 331,419.

Barinaga, J. .... 267,162; 269,162; 270,162; 271,162.

Brevik, Bernice. .... 341,486.

Borok, Eli. .... 339,486.

Bush, L. E. .... 288,166.

Campbell, George W. .... 339,486.

Christensen, Annie. .... 289,113; 303,224; 310,289; 326,353; 341,486.

Clarke, Walter B. .... 282,110; 286,165; 288,166; 294,217; 298,219; 302,223;  
 303,224; 316,348; 317,349; 318,350; 320,351; 325,353;  
 337,421.

Crain, Karleton W. .... 304,283; 341,486.

Davies, Richard W. .... 339,486.

Diebel, Henry G. .... 304,283.

Editors. .... 323,417; 338,484.

Epstein, Leo F. .... 292,167; 311,287.

Evans, John Ellis. .... 336,420; 337,421.

Farnell, Albert. .... 282,110; 287,112; 286,165; 292,167; 304,283; 308,287;  
 310,289; 325,353; 336,421.

Felder, Virginia. .... 292,167.

Gaines, R. E. .... 299,220.

Gehman, H. M. .... 308,287; 310,288.

Gentry, F. C. .... 105,50.

Goormaghtigh, R. .... 326,479; 331,479.

Greenwood, R. E., Jr. .... 310,289; 339,486.

Grant, H. S. .... 305,283; 315,415.

Grossman, Howard D. .... 298,219.  
Grotts, S. Haywood. .... 282,110.  
Hausmann, S. J. .... 318,349; 320,351; 325,353; 326,353; 329,418.  
Heyman, Mark. .... 310,289.  
Hitt, James K. .... 292,167.  
Kelly, L. M. .... 281,57; 282,109; 289,113; 288,166; 290,166; 292,167; 298,219.  
Kennedy, E. C. .... 283,110; 327,354; 330,418; 339,486; 343,487.  
Kesler, Ray. .... 339,486.  
Lang, Annie Lyles. .... 292,167.  
Lang, Gaines B. .... 308,286.  
Lewis, Eunice. .... 320,351; 325,353.  
Luke, Yudell. .... 287,112; 304,283.  
MacKay, D. L. .... 281,57; 280,107; 282,109; 290,166; 292,167; 300,168; 294,217; 298,219; 302,223; 304,283; 309,287; 318,350; 320,351; 325,353; 326,353; 327,354; 329,418; 331,419; 337,421; 314,479; 332,482; 339,486; 341,486; 343,487.  
Mahrenholz, Johannes. .... 277,53; 278,55; 281,57; 282,110; 285,111; 289,113; 295,113; 290,166; 292,167; 284,215; 294,217; 298,219; 301,221; 302,223; 304,283; 308,287; 309,288; 273,414; 328,480; 332,483; 325,479; 326,479; 329,479; 331,479; 336,479; 337,479.  
Marer, Fred. .... 318,350.  
Merrill, L. L. .... 292,167.  
Mills, C. N. .... 306,285.  
Nance, Olen. .... 339,486; 343,487.  
Nowetcheski, L. .... 292,167.  
Parker, W. V. .... 309,288; 337,421; 341,486.  
Peters, J. W. .... 290,166.  
Quijano, Jorge. .... 337,421.  
Roberts, W. L. .... 304,282; 339,485; 325,479.  
Robertson, M. S. .... 341,486.  
Rosenbaum, J. .... 281,55; 279,106; 282,110; 307,285; 339,486.  
Rung, Janet. .... 310,288; 337,421.  
Sherman, Naomi. .... 339,486.  
Short, W. T. .... 294,216; 341,486.  
Simmons, H. A. .... 310,289.  
Simmons, Leo. .... 282,110.  
Steininger, C. L. .... 281,56; 329,418; 343,487.  
Stewart, J. C. .... 311,287.  
Templeton, Charles. .... 292,167; 304,283.  
Thébault, V. .... 226,53; 278,55; 289,113; 295,113; 286,165; 301,222; 319,351; 336,421.  
Thomas, Paul D. .... 282,110; 286,164; 304,383; 317,348; 320,351; 322,352; 337,421.  
Trigg, C. W. .... 224,51; 226,52; 268,53; 277,54; 278,54; 281,57; 272,105; 280,108; 282,110; 283,111; 285,112; 287,112; 289,113; 295,113; 245,163; 286,165; 288,166; 290,166; 292,167; 284,215; 294,217; 296,217; 297,218; 298,219; 302,222; 303,223; 259,281; 304,283; 306,284; 307,286; 308,287; 309,288; 310,289; 313,347; 317,349; 318,350; 319,350; 320,351; 322,352; 325,352; 327,353; 335,420; 336,421; 337,421; 332,483; 334,483; 339,486; 341,486; 343,487.  
Wescott, M. E. .... 285,112.  
Wishard, G. W. .... 326,353.  
Yates, Robert C. .... 281,57; 343,487.

